

Burroughs Corporation

ELECTRONIC COMPONENTS DIVISION
PLAINFIELD, NEW JERSEY

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NUMERICAL INDICATOR

Engineering Data Report

B-5991 Ultra Long Life Rectangular NIXIE[®] Tube

The new B-5991 NIXIE Indicator Tube is the first in a series of rectangular tubes which permit the miniaturization of digital equipment using in-line readout. Both the width and depth of this new tube have been reduced to approximately 75% of standard size cylindrical types while retaining numeral size. Individual tubes can now be stacked side by side using minimum panel space with no sacrifice in readability. In addition, the smaller width and depth of the rectangular tubes permit much greater design flexibility including the use of smaller drive circuits.

This new rectangular tube has all the characteristics which have made NIXIE Indicator Tubes the most widely accepted readout device in the electronics industry.

MECHANICAL DATA

Overall Length	1.120 Max.
Seated Height.	.862 Max.
Bulb Width	.790 Max.
Bulb Length	1.020 Max.
Numeral Height	.603 Nominal
Pin Connection	See Figure 3
Socket, 14-pin (SK-136). . .	See Figure 5
Mounting Position.	See Note 2

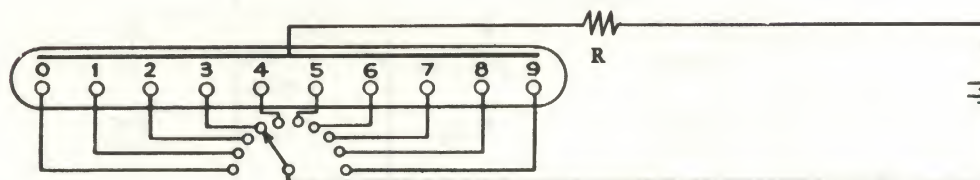
ELECTRICAL DATA

Absolute Ratings

Ionization Voltage . .	170 Vdc Max.
Supply Voltage. . . .	170 Vdc Min. (Note 1)
Cathode Current	3.0 ma Max.

Test Conditions (See Basic Circuit)

Supply Voltage (Ebb). .	170 Vdc
Series Resistor (R) . .	8.2 K
Cathode Current (Ik)	
(Minimum)	1.5 ma
(Maximum)	3.0 ma



E	R
170 V	8.2 K
250 V	47 K
300 V	68 K

Figure 1. Basic Circuit

Recommended Operating Conditions

NOTES

1. The minimum supply voltage should be 170 volts. However, the use of the highest available voltage with the appropriate series resistor is recommended to maintain cathode current within the specified limits.

2. The center line of the numbers to be displayed passes through pins 6 and 12 of the tube. The tube socket should be oriented so that pins 6 and 12 are in a vertical line with pin 12 at the top.

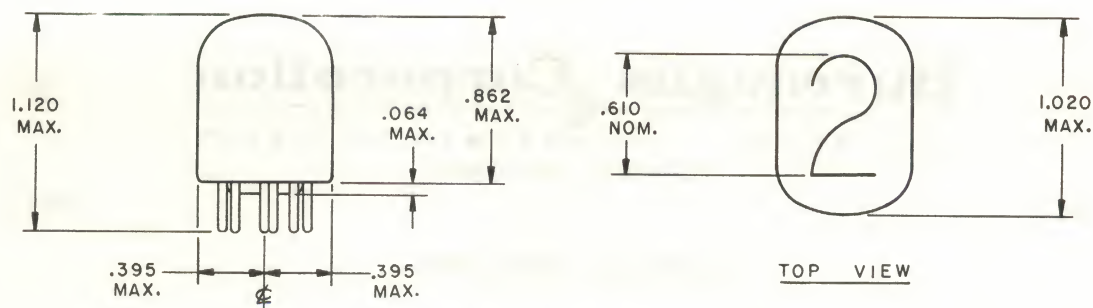


Figure 2. Outline Drawing

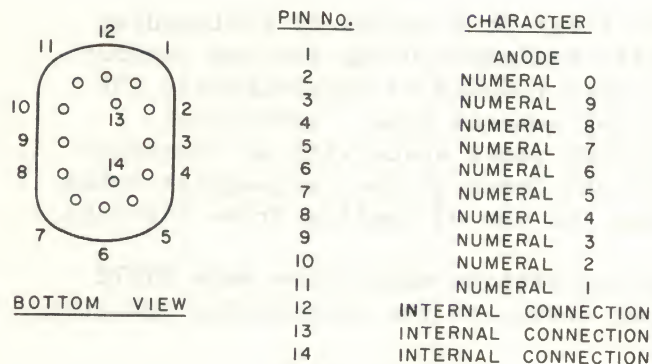


Figure 3. Pin Connections

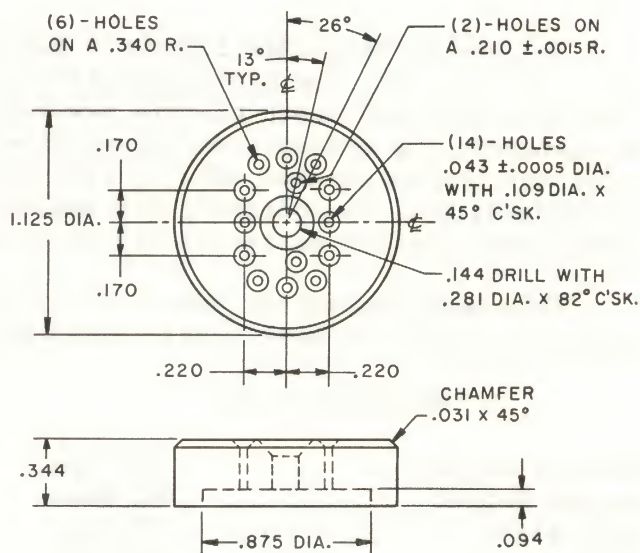


Figure 4. LS-210 Pin Straightener

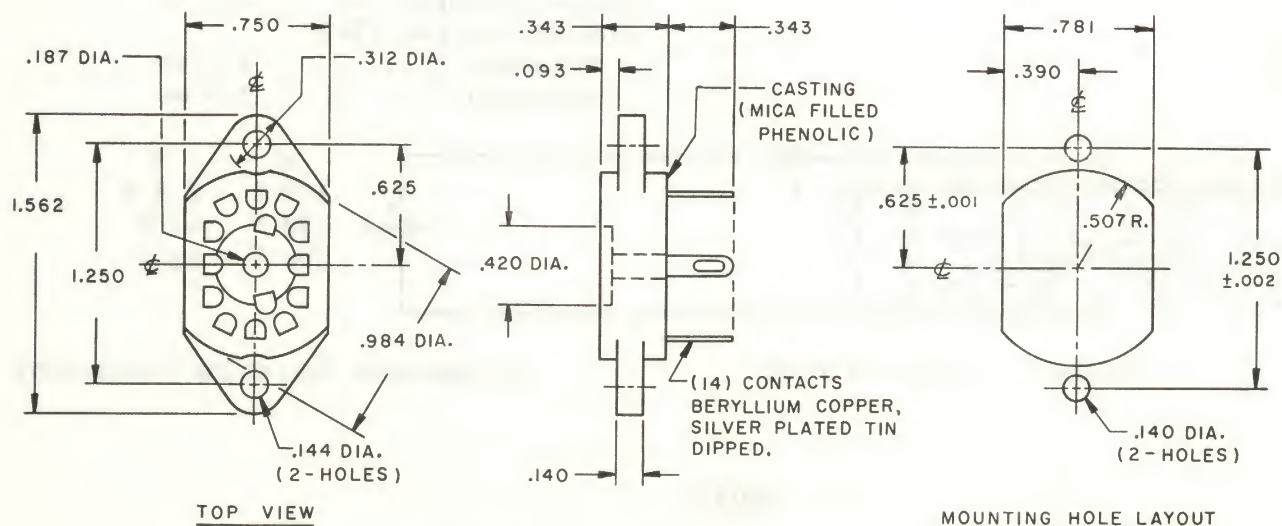


Figure 5. SK-136 Socket

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